Pre-Approved Structures, Components, and Appurtenances List

Item	Applicable Conservation Practice Standard	Issue Date	Review Date
Freeze Proof Tanks	Watering Facility – 614	6/2/03	
Energy-Free Fountains	Watering Facility – 614	6/2/03	
Wildlife Water Guzzler	Wildlife Watering Facility - 648	6/2/03	
Plastic Anti-seep Collar	Pond (378), Grade Stabilization Structure (410), Structure for Water Control (587)	6/2/03	
Air Relief Valves	Irrigation Water Conveyance Pipeline – 430	6/2/03	
Pressure Relief Valves	Irrigation Water Conveyance Pipeline – 430	6/2/03	

NOTES:

These lists include structures, appurtenances, and components that have been approved for use under the applicable conservation practice standard. Items in these lists have been studied and reviewed for technical adequacy for their intended use. These lists are not intended to favor one company's product over another; they only reflect those items that have been submitted for review and have been approved. Items not in these lists must be individually approved before installed. These lists are applicable to the appropriate conservation practice standard regardless of program or cost share.

Some of the items listed are approved conditionally meaning that certain criteria must be met for them to be used. Conditional criteria, if applicable, follows each list.

PROCEDURE FOR SUBMITTAL

Field office personnel can submit items for addition to the Pre-Approved Structures, Components, and Appurtenances Index by filling out the "Request for Zone Technical Committee Action" form (found on the intranet under Ecological Sciences), and using the following procedure:

1. Provide adequate and appropriate specifications and/or manufacturer's information. It is recommended that the field office discuss the request with the appropriate technical specialist prior to submittal.

2. If applicable, the Zone Technical Committee will assign the request to the appropriate technical specialist who will review the request, conduct a site visit of at least two installations, interview landowners, and make their recommendation.

3. If the technical specialist concurs with the request, the technical specialist shall report back to the Zone Technical Committee. The submittal shall include all pertinent data the Technical Specialist deems necessary to support their evaluation.

4. If the Zone Technical Committee concurs, the request is sent to the chair of the State Technical Guide Committee with all pertinent data. The committee will consider each submission and approve, reject, or return for additional information.

Conservation Practice Standard – Watering Facility (614)

Freeze-Proof Tanks

Ozark Wilbert Concrete Products – precast concrete, freeze proof tanks
- 100 GALLON/BTM PLB
- 100 GALLON/END PLB
- 200 GALLON/END PLB

Stewart Concrete Product – precast concrete, freeze proof tank
- Anti-Siphon C.W. 200 Livestock Water (250 gallons)

Energy-Free Fountain Waterers

Ritchie Thrifty King Electric-Free Fountain Waterers
Miraco Mirafount Energy-Free Waterers
Hawkeye Steel Products, Inc. – Pride Of The Farm, Polar-Max

Conservation Practice Standard – Wildlife Watering Facility (648)

Wildlife Water Guzzler, Fiberglass Reservoirs
- 4 feet diameter by 2 feet deep, 200 gallons
- 8 feet diameter by 2 feet deep, 750 gallons
- 8 feet diameter by 6 feet deep, 2200 gallons
- 12 feet diameter by 6 feet deep, 5000 gallons

Conservation Practice Standards – Pond (378), Grade Stabilization Structure (410), Structure for Water Control (587)

Plastic Anti-seep Collar

Scheib Drainage Products, NO-SEEP Anti-seep collar

Conservation Practice Standard – Irrigation Pipeline (430)

Air Relief Valves

No.	Brand Name	Model	Base Dia. (in.)	Orifice Dia. (in.)		Max. Pipe Dia. (in.)	
				Fraction	Decimal	High Press.	Low Press.
1	Waterman	1” AVP-1	1	1/2	0.500	2	4
2	Fresno	100P	1	3/4	0.750	4	6
3	Waterman	1” CRP-8	2	1 1/8	1.125	4	10
4	Travis	AV-150	1 1/2	1 1/8	1.125	4	10
5	Waterman	AV-150B	1 1/2	1 1/8	1.125	4	10
6	Waterman	AV-150P	2	1 1/8	1.125	4	10
7	Travis	AV-200	2	1 1/4	1.250	6	12
8	Waterman	AV-150B	2	1 1/4	1.250	6	12
9	Waterman	AVR-2	2	1 7/16	1.4375	6	14
10	Waterman	AV-75	2	1 5/8	1.625	6	16
11	Fresno	AG200	2	1 5/8	1.625	6	16
12	Fresno	AG200A	2	1 3/4	1.750	8	16
13	Waterman	AV-150B	2 1/2	1 3/4	1.750	8	16
14	Waterman	AV-150C	2	1 3/4	1.750	8	16
15	Rain Bird	RB-2AV	2	1 3/4	1.750	8	16
16	Fresno	AG200-B	2	1 3/4	1.750	8	16
17	Waterman	AV-150P	3	1 3/16	1.8125	8	18
18	Waterman	VR-125	2	1 7/8	1.875	8	18
19	Waterman	AV-200	3	2 1/32	2.03125	8	20
20	Waterman	2” CRP-8	2	2 1/16	2.0625	8	20
21	Waterman	CR-100	2	2 1/16	2.0625	8	20
22	Waterman	2” AVP-1	2	2 1/8	2.125	8	20
23	Fresno	35	2	2 1/8	2.125	8	20
24	Waterman	3” AV-15 Manifold	3	2 3/16	2.1875	8	20
25	Waterman	AV-150B	3	2 1/4	2.250	10	22
26	Travis	AV-200	3	2 1/4	2.250	10	22
27	Fresno	AG300	3	2 3/8	2.375	10	22
28	Waterman	AV-75	3	2 7/16	2.4375	10	24
29	Waterman	4” AV-150 Manifold	4	2 1/2	2.500	10	24
30	Fresno	AG-300-B		2 1/2	2.500	10	24
31	Rain Bird	RB-3AV		2 9/16	2.5625	10	24
32	Waterman	VR-125	3	3	3.000	12	27
33	Waterman	AV-75	4	3	3.000	12	27
34	Waterman	CR-100	3	3 1/16	3.0625	12	27
35	Waterman	AV-150P	4	3 1/8	3.125	12	27
36	Fresno	35	3	3 1/8	3.125	12	27
37	Waterman	AV-150B	4	3 1/4	3.250	14	27
38	Fresno	AG400	4	3 1/4	3.250	14	27
39	Waterman	AV-150C	4	3 1/2	3.500	15	27
40	Fresno	AG400-A	4	3 1/2	3.500	15	27
41	Rain Bird	RB-4AV	4	3 3/5	3.600	15	27
42	Fresno	AG400-B	4	3 5/8	3.625	15	27
43	Waterman	VR-125	4	4	4.000	18	27
44	Waterman	CR-100	4	4	4.000	18	27
45	Fresno	35	4	4 1/8	4.125	18	27

Low Pressure Pipelines (< 50 psi) – Air-and-Vacuum Valves
The diameter of the orifice (the opening that controls air flow during filling and emptying operations) of an air-and-vacuum valve shall equal or exceed that specified below for the appropriate pipe diameter.

Diameter of Pipeline (in.)	Diameter of Orifice (in.)
4	3/4
6	1 1/4
8	1 3/4
10	2 1/4
12	2 3/4
14	3 1/4
15	3 1/2
16	3 3/4
18	4

Manufacturers of air-and-vacuum valves shall provide dimensional data, which shall be the basis for selecting and accepting these valves.

High Pressure Pipelines (>50 psi)
The ratio of air-release valve diameter to pipe diameter should not be less than 0.1 for valves intended to release air when filling the pipe.

Air-release valves or combination air valves shall be used as need to permit air to escape from the pipeline while the line is at working pressure. Small orifices of these types shall be sized according to the working pressure and venting requirements recommended by the valve manufacturer.

Manufacturers of air valves shall provide dimensional data, which shall be the basis for selecting and accepting these valves.

Conservation Practice Standard – Irrigation Pipeline (430)
Pressure Relief Valves

Brand Name	Model	Size (in.)	Low Pressure Pipe (<50 psi)		High Pressure Pipe (>50 psi)
			Max. Capacity at Preset Crack Pressure		Max. Pipe Diameter (in.)
			22 psi (GPM)	45 psi (GPM)	
Waterman	AA-9	3	700	960	12
	AA-9	4	1050	1380	16
	AA-9	6	1620	3000	24
	AA-6	2	60	275	8
	AA-6	2 ½	60	275	10
	AA-6	3	60	275	12
	AA-69	3	50	---	12
	AA-96	3	900	900	12
	AA-96-T	3	665	---	12
Fresno	900	3	700	1020	12
	900	4	1060	1400	16
	900	6	1600	2800	24
	600	2	75	210	8
	600	2 ½	75	210	10
	600	3	170	422	12
Pierce		3	140	---	12

- For high pressure pipelines, pressure relief valves shall be no smaller than ¼ inch nominal size for each inch of the pipeline diameter and shall be set to open at a pressure no greater than 5 psi above the pressure rating of the pipe.
- For low pressure pipelines, the flow capacity of pressure relief valves shall be the pipeline design flow rate with a pipeline pressure not greater than 50% more than the permissible working pressure for the pipe.
- The pressure at which the valves start to open shall be marked on each pressure relief valve. Adjustable pressure relief valves shall be sealed or otherwise altered to prevent changing the adjustment from that marked on the valve.
- Manufacturers of pressure relief valves shall provide capacity tables, based on performance tests, that give the discharge capacity of the valves at the maximum permissible pressure and differential pressure settings. Such tables shall be the basis for design and acceptance of these valves.

Vendor Directory

Ozark Wilbert Concrete Products
1451 North Farmer Branch Road
Ozark, Missouri 65721
1-417-581-3060
1-888-262-7383

Stewart Concrete Products
Halfway, Missouri
1-417-445-2421

Ritchie Industries, Inc.
120 South Main
P.O. Box 730
Conrad, Iowa 50621
1-800-747-0222

Miraco
P.O. Box 686
Grinnell, Iowa 50112
1-641-236-5822

Hawkeye Steel Products, Inc.
P.O. Box 2000
Houghton, Iowa 52631
1-319-469-4141
www.hawkeyesteel.com

Wildlife Water Guzzler, LLC
1003 Buffalo Trail
Canyon, TX 79015
1-877-655-1209

Scheib Drainage Products Inc.
203 S. Monroe
Oregon, Missouri 64473
1-800-279-3575

Waterman
P.O. Box 458
Exeter, CA 93221
1-800-331-0808
www.watermanusa.com

Fresno
7736 East Springfield Avenue
P.O. Box 40
Selma, CA 93662
1-800-333-1658
www.fresnovalves.com

Travis Pattern and Foundry
Box 6325
Spokane, WA 99207
1-509-466-3545

Rainbird
1-800-724-6247
www.rainbird.com

Pierce Corporation
10 North Garfield Street
Eugene, OR 97402
1-541-485-3111
www.pierce-irrigation.com